

EMV Chip Cards
Not as Scary as it Used to be

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Agenda



Fraud Landscape

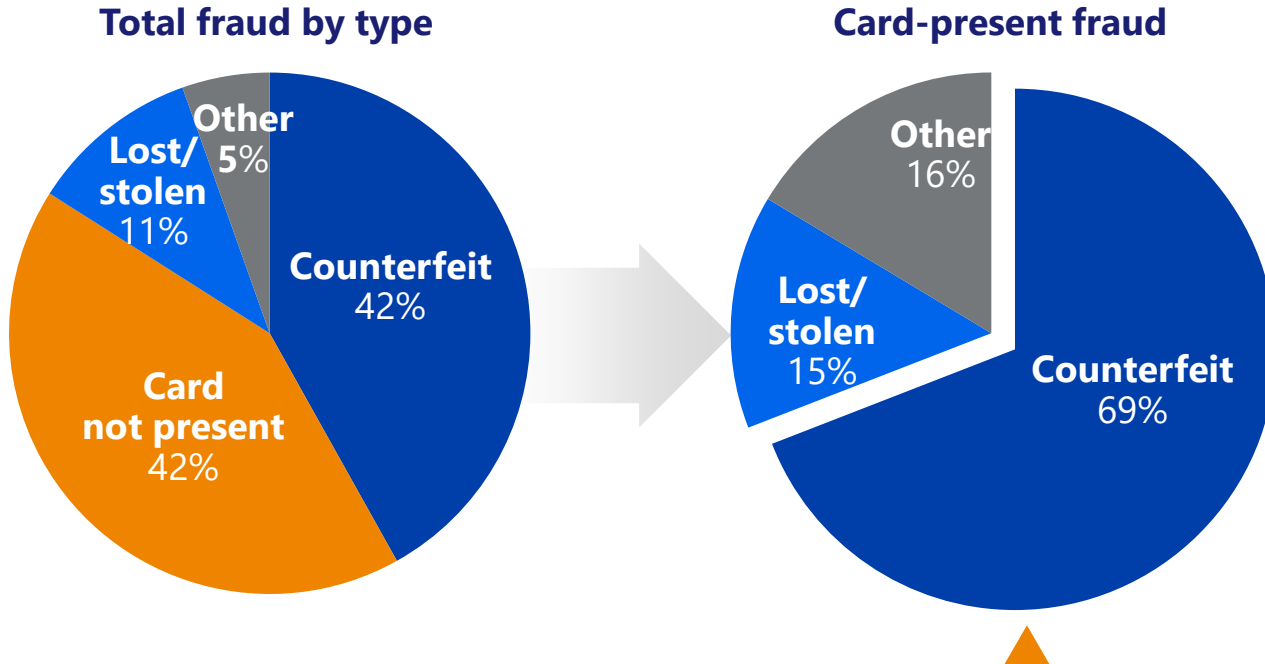
EMV Update

EMV Quick Chip

Questions

Fraud landscape today

Counterfeit fraud represents 69% of card-present fraud and is growing



EMV chip will significantly reduce card-present counterfeit fraud

Fighting fraud from every angle



42%
Counterfeit

42%
Card Not Present

11%
Lost and Stolen

ENCRYPTION

REAL-TIME PREDICTIVE ANALYTICS



EMV

- Creates a unique cryptogram for each transaction
- Not a silver bullet



Tokenization

- Replaces PAN with unique digital alias
- If payment token is used as the PAN*, it will be identified as stolen and rejected

*Primary Account Number



VCAS

- Dynamic, risk-based authentication
- Reduces friction at the POS



PIN

- Fraudster must know PIN for card to work
- Static data set

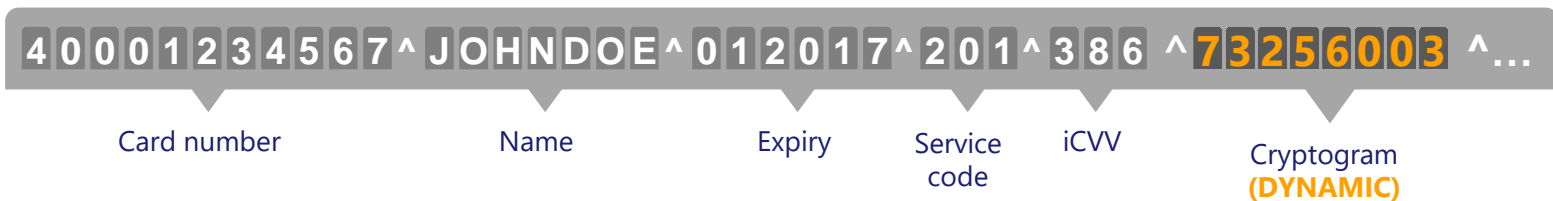
Biometrics

- Enhances cardholder verification
- Reduces friction at the POS

How does EMV chip technology work?



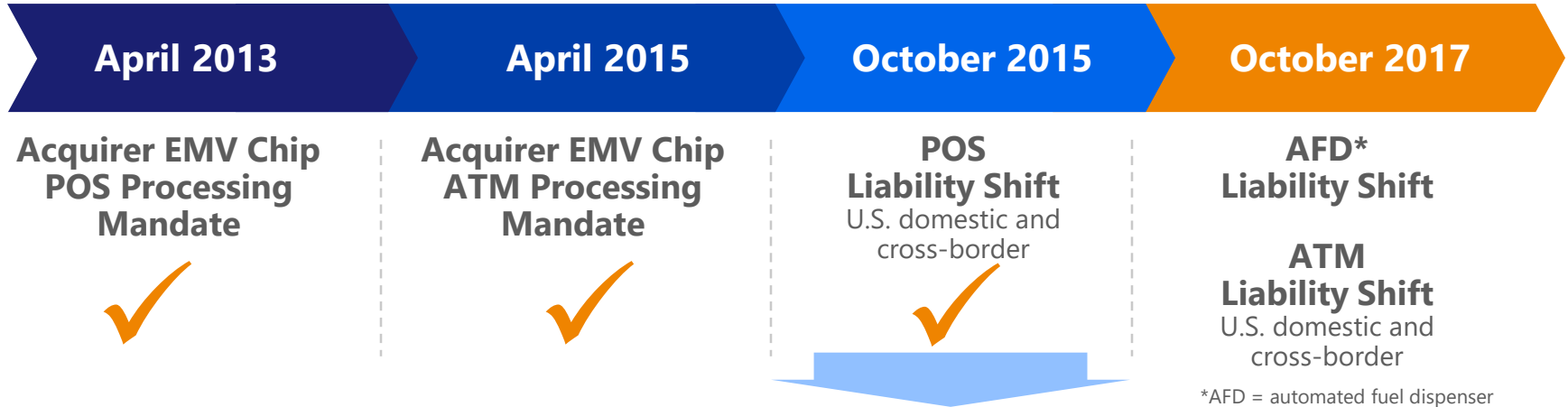
Because the cryptogram changes with every transaction, even if the card data is stolen, the information can't be used to create counterfeit cards because the cryptogram would have already "expired"



Visa U.S. EMV chip roadmap



- In August 2011, Visa led the industry by setting a plan to move the U.S. to EMV chip technology
- Successful globally, liability shifts have been the primary tool used to encourage both issuers and merchants to adopt EMV chip technology



Card	Terminal	Liability
Mag stripe only	Mag stripe only	Issuer
Mag stripe only	Mag stripe only	Issuer
Mag stripe only	EMV chip	Issuer
EMV chip	Mag stripe only	Acquirer
EMV chip	EMV chip	Issuer

U.S. EMV chip migration status as of Sept. 2016



52% of US cards now have chips that resulted to 82% of payment volume

Adoption

176.0M

US issued EMV Visa
credit cards
94% PV

196.9M

US issued EMV Visa
debit cards
68% PV

1.64M

US EMV Visa acceptors
39% PV

Usage¹

32.2%

US credit card chip on
chip transaction
40.8% by PV

16.1%

US debit card chip on
chip transaction
23.0% by PV

Fallback²

2.1%

US EMV credit card
fallback rate
2.0% by PV

3.6%

US EMV debit card
fallback rate
3.5% by PV

Sources: Current cards based on MARS data through September 30, 2016.

¹Visa branded chip cards processed as chip transactions.

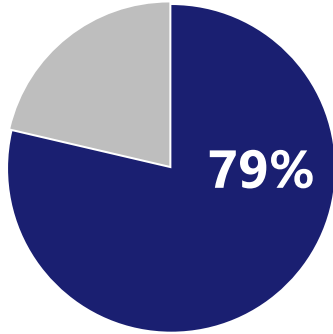
²Magstripe transactions using a Visa branded chip card in a chip terminal.

Merchant Chip-on-Chip Transaction Rates

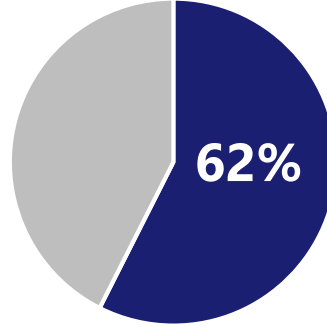


Key Merchant Categories Have Made Significant Strides*

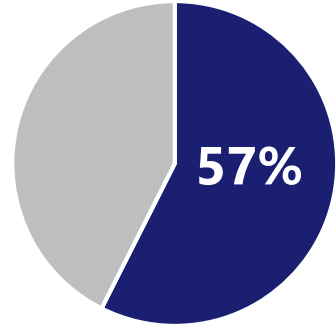
Electronics



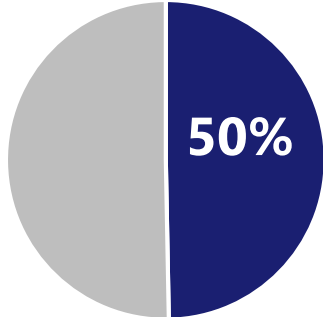
Drug Stores/Pharmacy



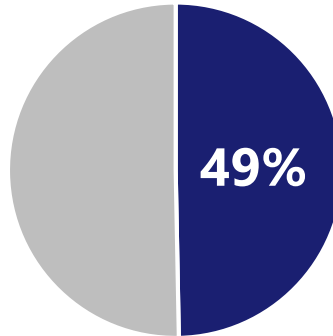
Home Improvement



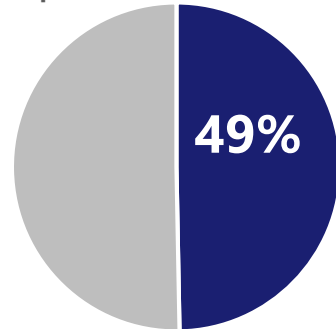
Food/Grocery



Discount Stores



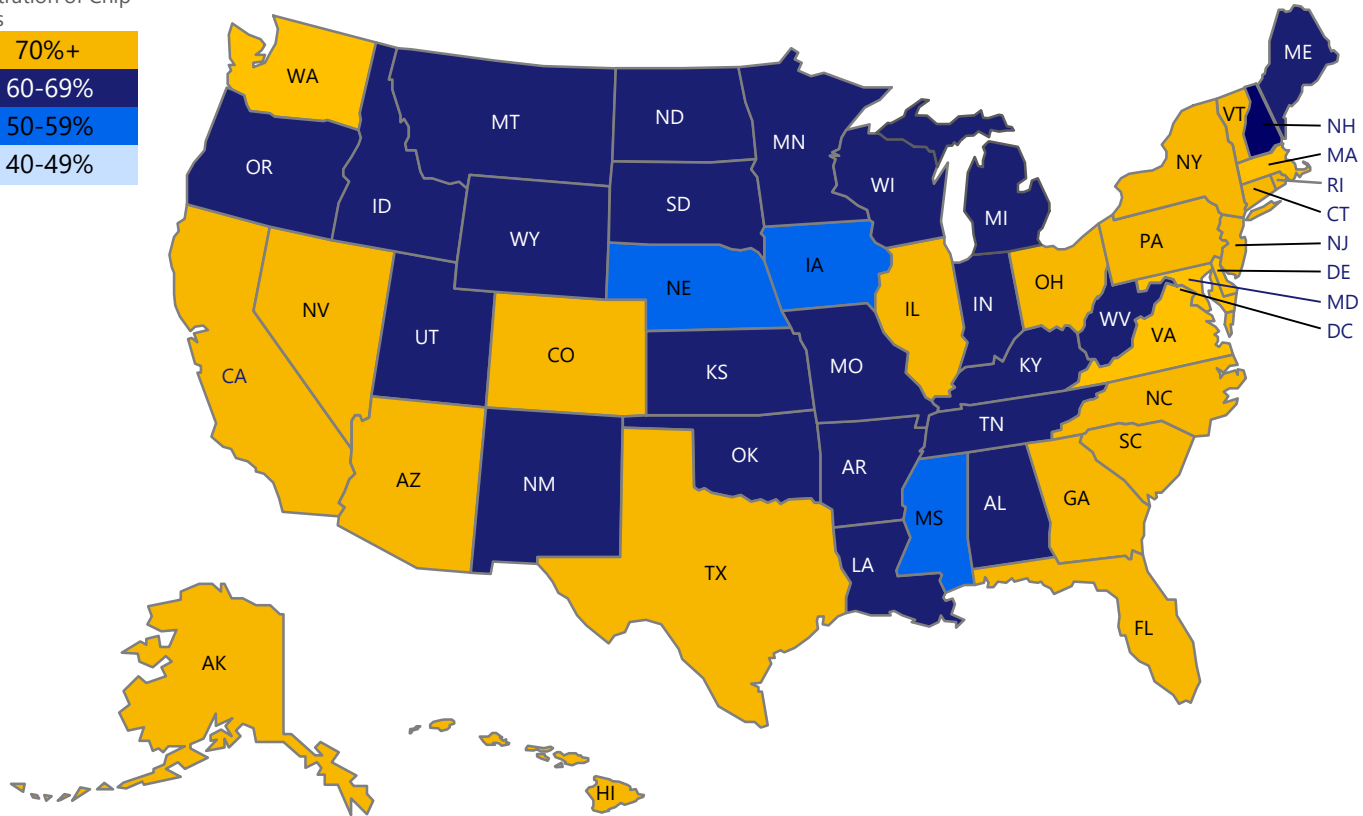
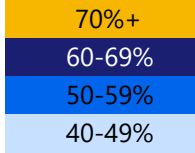
Department Stores



Chip Card Issuance by State



Penetration of Chip Cards



Source: VisaNet Data as of September 30, 2016. Chip card transactions at Mag Stripe or EMV terminals (based on 201 service code)

U.S. EMV Chip Migration Status



Counterfeit Fraud Continues to Decrease

For merchants who have completed the chip upgrade, **counterfeit fraud dollars** dropped 54% in June compared to a year earlier.



DOWN
54%

EMV Testing and Certification Update



- **Visa announced EMV chip roadmap in 2011** to give the industry time to plan and adopt EMV on their own timeframe
- Visa has been working with acquirers, processors, and point of sale providers on programs aimed at increasing the speed of certifications
- Visa has **streamlined testing requirements** for chip terminals that can reduce certification timeframes by as much as 50 percent
 - Published a revised set of “minimum” test scripts in Dec 2015
 - Reduced the number of test scripts by over 50%, from 35 to 14
 - Acquirers can self-certify and complete testing in less than an hour
- Many merchants are dependent on Value Added Resellers (VARs) to develop and implement their terminal software
 - VARs can pre-certify their software solutions using 3rd parties to **reduce the testing that the acquirer/processors need to do by up to 80%**
 - Visa **provides hands-on support** to VARs who need technical information, education, consulting, and training. A dedicated team of experts are available to provide direct support.

In June, Visa announced the following changes to our chargeback policies

- **Minimum Chargeback Amount**

Effective 22 July 2016 through April 2018, **a \$25 minimum amount** will be required for allowable counterfeit chargebacks on U.S. domestic card present transactions

- **Maximum Chargebacks per Account**

Effective from October 2016 through April 2018, **a maximum of 10 counterfeit fraud chargebacks will be allowed per account** in 120-day period for U.S. domestic card present transactions

Visa Quick Chip for EMV[®] speeds up checkout times on chip transactions at the point of sale and optimizes the consumer experience while providing the same level of EMV security, including the cryptogram.





With Quick Chip, merchants and their customers benefit from a faster EMV check out experience



Reduce development
& testing time by up to

85%

Implement Quick Chip in
as little time as

1 week

Introducing Quick Chip



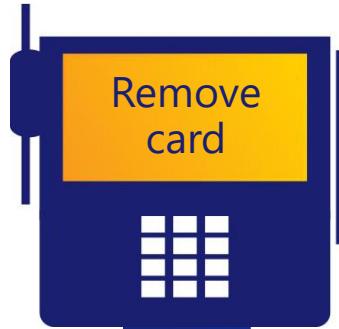
1

Insert the card face up,
chip end first



2

Remove card when prompted.
Processing should take about
2 seconds or less.



3

Follow prompts on screen
to finalize transaction



Counterfeit fraud mitigation best practices



Point-of-sale merchants who are not EMV-chip enabled

Read and compare verification



Be on the lookout for highly suspicious transactions



High-value purchases

such as prepaid cards, electronics, jewelry or large amounts of merchandise

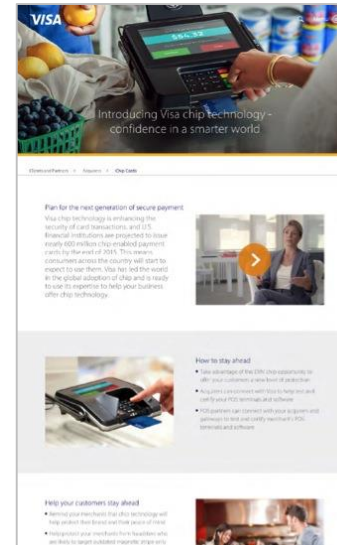
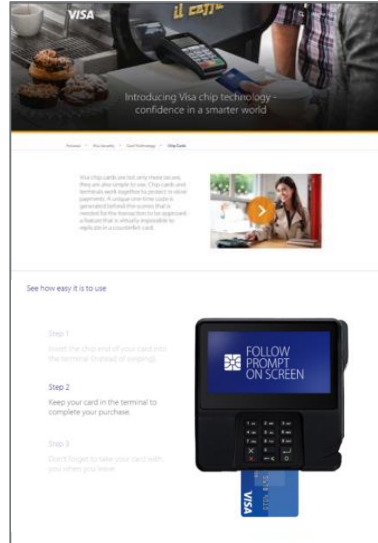
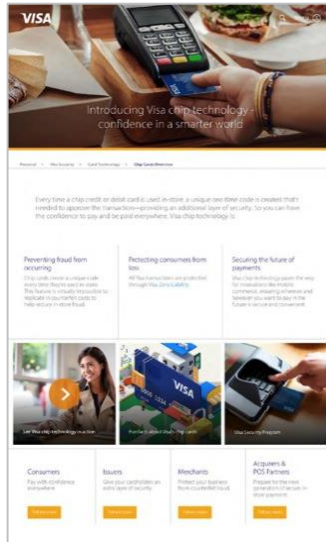


Use common sense



Know what behavior is normal for your business

Online destination for merchants, acquirers, issuers, service providers and consumers



EMV Migration Forum

- www.emv-connection.com
- gochipcard.com

Testing Documentation

- [Visa Inc. U.S. EMV Chip Terminal Testing Requirements](#)
- [Visa Minimum U.S. Online Only Terminal Configuration and Quick Chip](#)
- [Visa Chip Bytes and more.....](#)

Questions?

Upcoming Events & Resources



- **Upcoming Webinars** – www.visa.com/cisp
 - November 16, 2016 – Top 10 Signs your Payment Network is Breached

- **Visa Data Security Website** – www.visa.com/cisp
 - Alerts, Bulletins
 - Best Practices, White Papers
 - Webinars

- **PCI Security Standards Council Website** – www.pcissc.org
 - Data Security Standards – PCI DSS, PA-DSS, PTS
 - Programs – ASV, ISA, PA-QSA, PFI, PTS, QSA, QIR, PCIP, and P2PE
 - Fact Sheets – ATM Security, Mobile Payments Acceptance, Tokenization, Cloud Computing, and many more...